

# **Infrared Cordless Stereo Headphones System**

## **RP-WH20**

### **Operating Instructions**

# **Panasonic®**

#### **Dear customer**

Thank you for purchasing this product.

For optimum performance and safety, please read these operating instructions carefully.

#### **Features**

- Can be used up to approx. 7 meters directly in front of the transmitter. (The direction to the transmitter and the condition of the batteries shorten this distance.)
- Open-air type headphones, making it easier to use them for a longer time. Has wide, 40 millimeter diameter units, enabling playback of powerful deep bass sounds.
- The transmitter is powered by the included AC adapter. The headphones use two R03/LR03 (AAA, UM-4) batteries.
- Can be connected to either the headphones jack or the line output terminals on audio-visual equipment using the supplied adaptor cord.



Before connecting, operating or adjusting this product, please read these instructions completely. Please save this manual.

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Matsushita Electric Corporation of America**  
One Panasonic Way Secaucus, New Jersey 07094  
<http://www.panasonic.com>

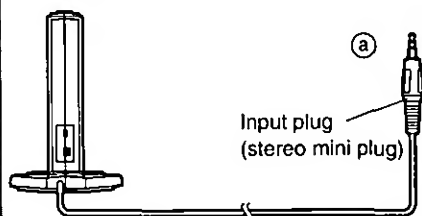
**Panasonic Sales Company, Division of Matsushita Electric of  
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Ave. 65 de Infantería, Km. 9.5 San Gabriel Industrial Park, Carolina,  
Puerto Rico 00985

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## Connections

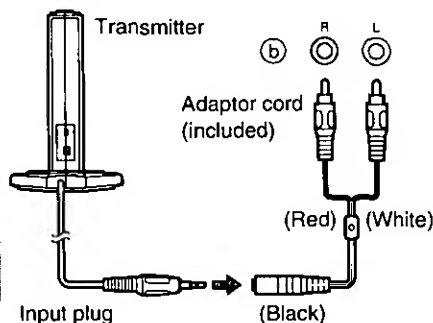
**1**

**A** Connect to headphones jack (stereo).



Infrared Beam Transmitter

**B** Connect to line output terminals.



**1** Connect the audio-visual equipment.

There are two ways to connect the unit to audio-visual equipment: **A** or **B**.

**When connecting the transmitter to the headphones jack**

Use the input plug to connect the unit to the headphones jack on your audio-visual equipment.

(a) Portable CD player, headphone stereo, radio/tape players, personal computer, etc.

**When connecting the transmitter to any other output terminal**

Use the supplied adaptor cord to connect the unit to the line output terminals on your audio-visual equipment.

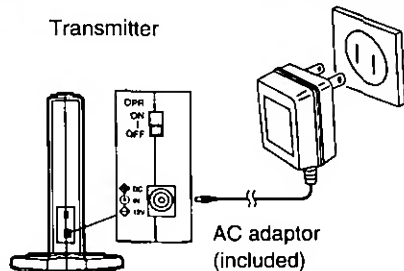
(b) Amplifier, TV set, video deck, cassette deck, laser disc player, etc.

**2** Connect the power supply to the transmitter.

**2**

AC power outlet

Transmitter



The unit is in the standby condition when the AC adaptor is connected. The primary circuit is always "live" as long as the AC adaptor is connected to an electrical outlet.

## Operation

### Preparation:

Turn on the equipment that you have connected.

If you have connected the transmitter to the headphones jack on the equipment, turn the volume up as far as possible without causing distortion.

**1** Switch the transmitter on with the OPR switch.

**2** Turn the volume on the headphones all the way down, then switch them on with the OPR switch.

The OPR/BATT indicator lights up.

**3** Put the headphones on and adjust the volume.

Since this unit utilizes an infrared beam, in proportion to the range from the infrared beam transmitter, hiss may increase. **Interception of the infrared beam causes noise or a break in sound.**

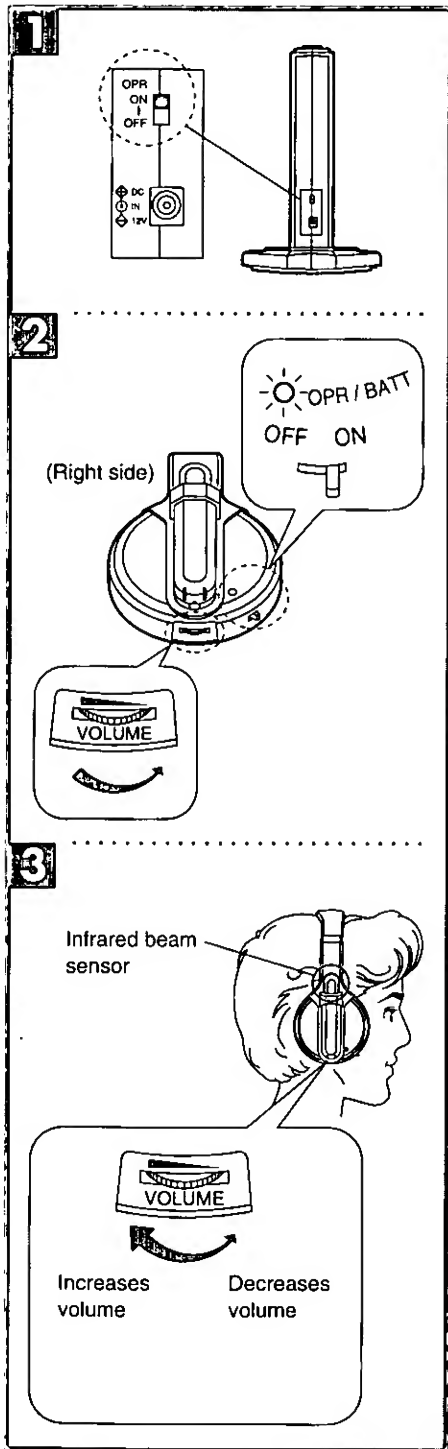
These phenomena are not an indication that the unit is out of order.

### Notes:

- Use the headphones within the range described in "Installation".
- Obstructions decrease the effectiveness of the sensor. Keep your hands away from the sensors.
- This unit uses infrared beams, so do not use the headphones in direct sunlight.

### After use:

- Switch off the headphones, transmitter, and audio-visual equipment.
- Store the headphones on the transmitter.



## Product Service

Do not attempt to remove the cover(s) or repair the unit yourself. Refer servicing to qualified personnel only.

### Product information

For product service, product information or assistance with product operation, refer to the servicenter directory.

User memo:

DATE OF PURCHASE \_\_\_\_\_  
DEALER NAME \_\_\_\_\_  
DEALER ADDRESS \_\_\_\_\_  
\_\_\_\_\_  
TELEPHONE NUMBER \_\_\_\_\_

## Specifications

### ■ General

**Wavelength of infrared beam** 860 nm  
**Modulation system** Frequency modulation  
**Carrier frequency** 2.3 MHz for left channel  
2.8 MHz for right channel

**Transmitting distance**

Approx. 7 meters (in front)

**Frequency response** 19–22,000 Hz

**Distortion ratio** Less than 1.0% (at 1 kHz)

### ■ Infrared Beam Transmitter (beam emitter)

**RP-WH20T**

**Power supply** DC 12 V, 150 mA  
(using AC adaptor, included)

**Power consumption** 4 W

**Dimensions (W×H×D)** 125×205×90 mm

**Weight** Approx. 200 g (including cord)

**Audio input terminals**

Stereo mini plug or pin plug ×2  
(using the supplied adaptor cord)

**Cord length**

Approx. 2 m

### ■ Headphones (beam sensor)

**RP-WH20H**

**Type** Open-air dynamic stereo headphones

**Unit** 40 mm diameter

**Power supply** Two R03/LR03, AAA, UM-4  
batteries

**Weight** Approx. 240 g (including batteries)

**Battery operation time**

<b>Batteries used</b>	2 Manganese batteries	2 Alkaline batteries
<b>Battery operation time</b>	Approx. 20 hours	Approx. 40 hours

### ■ Accessories

Use numbers indicated in parentheses when asking for replacement parts.

—AC adaptor (DC 12 V, 150 mA) (RFX1813)

—Adaptor cord (stereo mini jack—pin plug ×2)  
(RFX1645)

### Note:

Specifications are subject to change without notice.

Weight and dimensions are approximate.

**To order accessories contact 1-800-332-5368 or web site (<http://www.panasonic.com>).**

## Troubleshooting guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your dealer for instructions.

Problem	Probable cause(s)	Suggested remedy
<b>No sound.</b>	Is power being supplied to audio-visual equipment?	Turn on the power.
	Have the transmitter and audio-visual equipment been connected properly?	Read the section on "Connections" and connect the units properly. Ensure that the plugs are properly inserted.
	Is the volume on the headphones down too far?	Turn the volume up.
	Is the volume on the audio-visual equipment down too far?	If the transmitter is connected to the headphones jack, turn the volume up as far as possible without causing distortion.
<b>Distorted sound.</b>	Is the input level of the audio signal too high?	When the transmitter has been connected to the headphones jack on audio-visual equipment, turn down the volume of the connected unit.
<b>Too much noise.</b>	<ul style="list-style-type: none"> <li>Does the infrared beam reach the headphones?</li> <li>Is the path between the transmitter and headphones obstructed by something?</li> </ul>	Use the headphones nearer the transmitter.
		Make sure that the infrared beam sensor (on the headphones) is not covered by your hand, etc.
		Change the transmitter's position and direction.
	Is the input level of the audio signal too low?	When the transmitter has been connected to the headphones jack on audio-visual equipment, turn up the volume of the connected unit.
<b>No sound, distorted sound or too much noise.</b>	Is the OPR/BATT indicator dim or out completely?	The batteries have run down and need to be replaced.

For detailed instructions, contact an authorized servicenter 1-800-211-7262 or web site (<http://www.panasonic.com>).

## Installation

These headphones use an infrared beam. The approximate area in which the infrared beam from the transmitter (beam emitter) can reach the headphones (beam sensor) is shown in the figure. Install the infrared beam transmitter inside the area indicated.

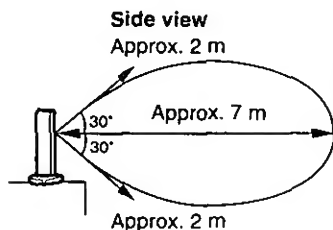
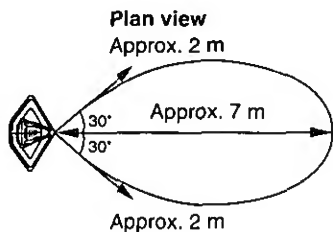
### Notes

- The infrared beam does not pass through walls or window panes. The headphones must be used where the infrared beam transmitter is directly visible without any obstructions.
- Do not expose the headphones to direct sunlight or to the bright light of an inverter fluorescent light.

## Maintenance

To clean this unit, wipe with a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth dipped in a soap-and-water solution or a weak detergent solution.

- Never use alcohol, paint thinner or benzene to clean this unit.
- Before using chemically impregnated cloth, read the instructions that came with the cloth carefully.



## Battery installation

The headphones are powered by two R03/LR03 (AAA, UM-4, not included) batteries. Insert one battery each into the battery compartments on the headphones.

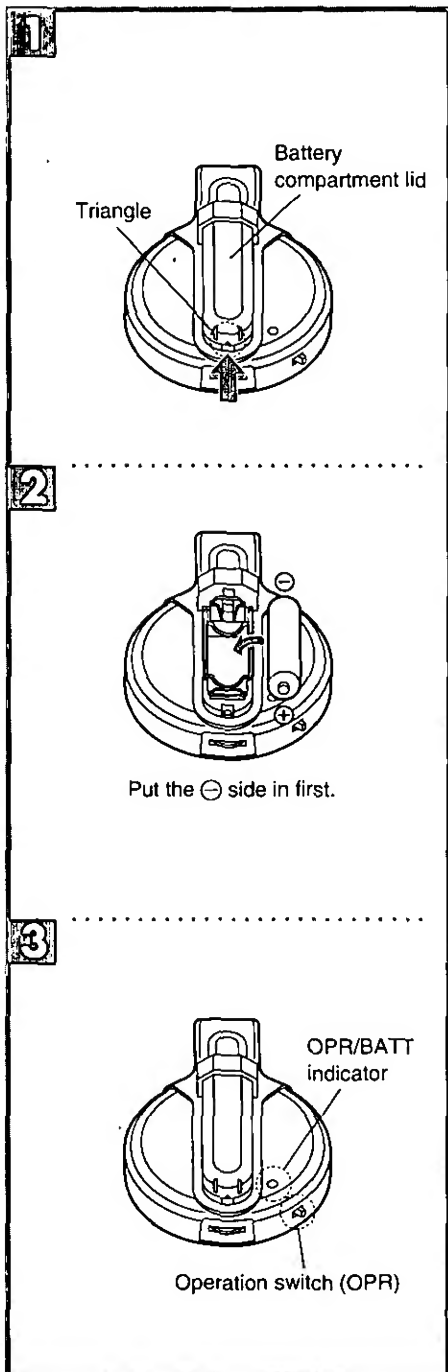
**Inserting the batteries:**

- 1** Push up on the triangle and open the battery compartment lid.
- 2** Insert the battery observing polarity.
- 3** Put the lid back on the compartment.

**How to tell when to change the batteries:**

The OPR/BATT indicator on the right hand side headphone lights up when the headphones are switched on with the OPR switch. When the batteries run down, the indicator dims or fails to light up. Noise and interference also increase. Change the batteries if any of these occur.

If rechargeable batteries are to be used, rechargeable batteries manufactured by Panasonic are recommended.



# Precautions

## Listening caution



Do not play your headphones or earphones at a high volume. Hearing experts advise against continuous extended play.

If you experience a ringing in your ears, reduce volume or discontinue use.

You should use extreme caution or temporarily discontinue use in potentially hazardous situations.

Even if your headphones or earphones is an open-air type designed to let you hear outside sounds, don't turn up the volume so high that you can't hear what's around you.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing.

Guard against this by setting your equipment at a safe level **BEFORE** your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.

The serial number of this product can be found on the label under the right ear pad. Please note them in the space provided below and keep as a permanent record of your purchase to aid identification in the event of theft.

MODEL NUMBER RP-WH20

SERIAL NUMBER \_\_\_\_\_

## AC adaptor

Handle the AC adaptor carefully. Improper handling is dangerous.

- Do not touch it with wet hands.
- Do not place heavy objects on top of it.
- Do not forcibly bend it.

Be sure to connect only the AC adaptor provided with the unit.

Disconnect the AC adaptor from the power outlet if the unit is not going to be used for a long time.

## Unit

### No altering or remodeling

This can cause malfunctioning.

### No dropping or strong impacts

This may damage the unit.

### Locations to be avoided

Avoid using the unit in the following locations since they can cause malfunctioning.

1. Bathrooms and other moisture-prone places
2. Warehouses and other dusty places
3. Very hot places near heating appliances, etc.

### Do not leave the unit exposed to direct sunlight for long periods of time.

This may deform or discolor the cabinet and may also cause malfunctioning.

To avoid product damage, do not expose this product to rain, water or other liquids.